

# Nikhil Matcha

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## CAREER OBJECTIVE

Skilled and versatile Full Stack Developer with experience in designing, developing, and maintaining web applications using a wide range of technologies including Java, microservices, RESTful APIs, and messaging systems like Kafka. Proficient in front-end technologies such as HTML, CSS, and JavaScript, as well as back-end frameworks like Node.js. Experienced with development and orchestration tools like Kubernetes and POSTMAN. Committed to delivering high-quality, scalable, and efficient code while staying abreast of the latest industry trends and best practices. Seeking to leverage my expertise to create seamless user experiences and innovative solutions. Passionate about problem-solving, continuous learning, and contributing to dynamic development teams to drive successful project outcomes.

## ACADEMIC QUALIFICATIONS

### **Master in Computer Information Systems**

(Certified in CyberSecurity)

Colorado State University Fort Collins

GPA: 3.73 / 4

**Jan 2023 - May 2024**

### **Master in Information Technology**

IIIT Hyderabad

CGPA: 9.3 / 10

**Sept 2020 - Jun 2022**

### **Bachelor of Technology Mathematics and Computing**

IIT Guwahati

**Aug 2015 - Aug 2019**

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## WORK EXPERIENCE

**Organization :** Colorado State University, Fort Collins

**Aug 2023 – May 2024**

**Profile :** Graduate Research Assistant

**Responsibilities :**

- Collaborated with Dr. Yiwen Gao on cyber security research, contributing to data collection and analysis efforts.
- Utilised advanced web scraping techniques to gather data from diverse sources and used the fuzzywuzzy library to identify and analyse similarities within datasets.
- Automated the data scraping process to enhance efficiency and accuracy, demonstrating strong problem-solving and technical skills in support of research objectives.
- Scraping the required companies data from various sources and finding similarities using fuzzywuzzy library.
- Evaluated and assessed student performance in CIS-370 (Business Analytics) course, employing robust grading methodologies to measure comprehension and application of course materials.
- **Technologies used :** Python, Java, NLP, JMP software, Business Analytics, MS Excel, OOPS

**Organization :** Techmojo Solutions, Hyderabad

**Jul 2022 – Jul 2023**

**Profile :** Member of Technical Staff (Java Developer)

**Responsibilities :**

- Developed an end-to-end system for vendors using REST APIs so as to enable online casino facilities.

- Successfully integrated new vendors and games for njord ventures' all brands so as to facilitate gaming operations for its customers across various countries in Europe.
- Enhanced the user registration and regulatory services to enable regulatory compliance specific to countries so as to launch the operations of the client in those countries.
- Improved the cashier service so as to enable cryptocurrency transactions for the njord customers.
- Designed and implemented a frontend website for vendors to conduct online casino operations to deliver an intuitive user experience.
- Diligently adhered to Agile methodologies and utilised the Scrum framework on a daily basis to effectively manage and deliver projects within designated timelines.
- Followed CI/CD pipeline techniques using git and jira to enhance project execution and team collaboration.
- **Technologies used** : Java, Spring Boot, Microservices, MySQL, JavaScript, HTML, CSS, React.js, Agile, MongoDB, Kubernetes, CI/CD, REST API, POSTMAN, JSON, XML, OOPS, JIRA, Kafka

**Organization** : **Omdena AI Community (Freelance)** **Jan 2019 – May 2024**  
**Profile** : **Machine Learning Engineer**  
**Project** : **Early Cancer Detection in Adults (Medical Science)**  
**Responsibilities** :

- Implemented blockchain and artificial intelligence technologies to develop a platform facilitating early cancer detection in adults, with a specific focus on the youth age group.
- Collaborated with a multidisciplinary team to create a system connecting patients and healthcare providers with on-demand fellowship-trained expert radiologists globally.
- Utilised AI algorithms to assess the likelihood and risk of developing cancer based on patient symptoms, leveraging a comprehensive database of diseases and past symptoms.
- Employed feature engineering that led to the creation of a robust dataset comprising 1,000 features, ensuring data integrity and relevance.
- Developed and implemented an initial-level model based on patient symptoms, contributing to early cancer detection efforts.
- Collaborated with stakeholders to continuously refine and improve the platform's functionality and performance.
- **Technologies used** : Python, Blockchain

**Project** : **Natural Language Processing (NLP) and Sentiment Analysis Project**  
**Responsibilities** :

- Conducted sentiment analysis on youth sentiments by web scraping data from Twitter, Instagram, and UNICEF, utilising Python.
- Performed Exploratory Data Analysis (EDA) to uncover patterns and distributions in the collected data.
- Employed advanced visualisation techniques using Plotly to create interactive basemaps, word clouds, violin plots, scatter plots, and dynamic heatmaps, facilitating deeper understanding of youth thoughts and sentiments.
- Visualised sentiment data over geographic locations using Tableau to provide insights into regional sentiment variations.
- Utilised Latent Dirichlet Allocation (LDA) to identify key topics in the data, revealing prevalent themes in youth sentiments.
- **Technologies used** : Python (NumPy, pandas, scikit-learn, TensorFlow, PyTorch), Plotly, Tableau, Latent Dirichlet Allocation (LDA), AWS Sagemaker

**Organization** : **Freelance** **May 2021 – Jul 2021**  
**Profile** : **Full-Stack Developer**  
**Responsibilities** :

- Developed a comprehensive book review website similar to IMDB, providing a platform for users to browse, review, and rate books.
- Designed and implemented server-side logic using Python and Flask API to handle user authentication, ensuring secure login and account management functionalities.
- Utilised SQLAlchemy for database management, ensuring efficient storage, retrieval, and manipulation of user accounts, book details, reviews, and ratings.

- Enabled users to interact with the platform by allowing them to give star ratings to books, submit detailed reviews, and see reviews and ratings submitted by other users.
- Created dynamic and responsive front-end interfaces using HTML, CSS, and JavaScript to enhance user experience and engagement, ensuring a seamless interaction with the review and rating features.
- **Technologies used** : Flask, postgresSQL, HTML, CSS, Python, sqlalchemy, JavaScript

**Organization** : **Multiverz, Singapore (Remote)**

**May 2021 – Jul 2021**

**Profile** : **Co-op intern**

**Responsibilities** :

- Led the development of a Natural Language Processing (NLP) model aimed at extracting key skills from diverse job postings.
- This model laid the foundation to the creation of an innovative application, empowering students and government entities to pinpoint crucial industry skills for tailored training strategies.
- Significantly boosted accuracy to an impressive 90% by integrating a Named Entity Recognition (NER) model, demonstrating a commitment to precision and excellence in skill identification.
- **Technologies used** : Python (NumPy, pandas, scikit-learn, BeautifulSoup), NLP, Named Entity Recognition (NER)

**Organization** : **Tikaj Technologies, Gurgaon**

**Oct 2019 – Dec 2019**

**Profile** : **Data analytics Intern**

**Responsibilities** :

- Initiated and executed a project focused on data acquisition from diverse local businesses across tier-2 and tier-3 cities as well as small towns, utilising multiple websites as data sources.
- Spearheaded the development of a comprehensive application offering centralised access to business information across various locales.
- Implemented a Python-based web crawler tool to automate data retrieval processes, significantly enhancing efficiency and reducing scraping time for diverse website formats.
- **Technologies used** : Python (NumPy, pandas, scikit-learn, BeautifulSoup, scrapy, selenium), MongoDB, bitbucket

## PROJECTS

- **Chess Engine Development**
  - Designed and implemented a sophisticated chess engine in python capable of autonomous gameplay, leveraging machine learning algorithms for position evaluation and move selection.
  - Employed a variety of machine learning techniques to assess positions and determine optimal moves, enhancing engine performance.
  - Implemented reinforcement learning methodologies such as the Min-Max algorithm and Alpha-Beta pruning to further strengthen the engine's strategic capabilities.
  - **Technologies used**: Python, pygame, Artificial Intelligence, Greedy algorithms, Machine Learning, Reinforcement Learning.

## SOFTWARE SKILLS

- |                                  |                 |
|----------------------------------|-----------------|
| • Python                         | • MySQL         |
| • Machine Learning               | • Spring Boot   |
| • Data Structures and algorithms | • Microservices |
| • C                              | • HTML          |
| • C++                            | • CSS           |
| • Java                           | • Java Script   |
| • MATLAB                         | • R             |
| • Jupyter notebook               | • Git           |

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## **EXTRA CURRICULARS**

- Champion in district level chess championship in the year 2020.
- Part of the bronze medal winning team in the inter hostel chess tournament in the event “SPARDHA” at IIT Guwahati in the year 2016.
- Captain of the silver medal winning team in the inter hostel cricket tournament in the event “SPARDHA” at IIT Guwahati in the year 2016.
- Active participant in various online chess tournaments in lichess.org and chess.com

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## **AWARDS & ACHIEVEMENTS**

- Received Cyberdefense Pro certification from Testout.
- Received scholarship for excellence in National Talent Search Examination in the year 2013.
- Received Certified Financial Analytics Practitioner (CFAP) certificate for excellence in the CFAP course from Henry Harvin Education in the year 2018
- Finished the “Complete JavaScript course 2020” course on Udemy and was awarded a certificate for excellence in the course in the year 2020.
- Finished the “Master the Coding Interview : Data structures + Algorithms” course on Udemy and was awarded a certificate for excellence in the course in the year 2020.